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EXAMINER

WONG, JOSEPH D

ART UNIT	PAPER NUMBER
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2168

NOTIFICATION DATE	DELIVERY MODE
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ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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Office Action Summary	Application No. 10/539,673	Applicant(s) ASAKAWA, HIROYOSHI	
	Examiner JOSEPH D. WONG	Art Unit 2168	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 September 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20050617 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>20070910, 20051003, 20050822, 20050617</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim 2 is interpreted as invoking 35 USC 112, 6th paragraph.

Priority

Should applicant desire to obtain the benefit of foreign priority under 35 U.S.C. 119(a)-(d) prior to declaration of an interference, a certified English translation of the foreign application must be submitted in reply to this action. 37 CFR 41.154(b) and 41.202(e).

Failure to provide a certified translation may result in no benefit being accorded for the non-English application.

Information Disclosure Statement

The information disclosure statements (IDSes) submitted on 20070910, 20051003, 20050822, 20050617 . The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609.04(a) states, "the list may not be incorporated into the specification but must be submitted in a separate paper."

Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

Drawings

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Fig. 11, 23-27, 42-43, 60-61 are objected to under 37 CFR 1.84 for using a font size that appears either illegible or too small.

Fig. 3, 8, 10, 11, 15-16, 45-51 and 56- 61 are objected under 37 CFR 1.84 because they appear to be informal screen shot submissions not complying with formal legibility or reproducibility requirements for drawings or formal photographs such as shading, dithering, etc.

Specification

There appears to be a data entry informality in that the specification refers to “Japanese Unexamined Patent Publication No.-6” yet this appears to a numerical informality because it seems unclear which entry if any this corresponds to in the IDS. Appropriate clarification is requested.

Title has been amended to “Nozzle model specification database catalog with search”.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-29 are rejected for being directed towards nonstatutory subject matter.

Claim 1 is directed to a nozzle information search system whose means appear to be software per se in combination with descriptive matter. Ordinarily, a nozzle is a

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physical article, however, the claim context of nozzle information or nozzle specification appears referent to descriptive information rather than to the presence of a physical article. The language of “means to” appears directed to software per se because instant specification Fig. 59 appears to be software. The recitation of a server and network elements within the preamble are interpreted as not breathing life and meaning into the body of the claim because the body of the claim does not positively address them as physical articles. Any physical article word such as “nozzle” within the body of the claim appears recited in the form of an adjective rather than a noun and therefore the elements appear to a combination of software per se and descriptive material. Software per se is not a series of steps or acts and thus is not a process. Software per se is not a physical article object and as such is not a machine or manufacture. Software per se is not a combination of substances and therefore is not a composition of matter. The apparatus claim lacks positive recitation of physical articles with a functional relationship with abstract manipulations which can be interpreted to be implemented with units of disembodied software. Claims 2-29 are rejected under the same reasoning as depending upon claim 1.

Applicants can look to MPEP 2106.01-2106.02 (September 2007), Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility, Instant Specification, and contemporary case law with a matching fact pattern for further suggestions that may be helpful in overcoming these rejections.

Claim Rejections - 35 USC § 102

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The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-4, 8-12 are rejected under 35 U.S.C. 102(e) as being anticipated by Zhang et al., US Pre-Grant Pub. No. 2003/0069720 A1; Filed 3 Oct 2002; Pub. Date 10 Apr 2003, hereinafter Zhang.

Regarding claim 1, Zhang teaches a nozzle information search system (interpreted as including "System for ..Selecting Pneumatic Device", Title), wherein a data base is constructed based on nozzle catalogs in a server system (Fig. 3, items 60, 62, 64, 66, processors) installed on a network (see Fig. 3, arrowed interconnected lines), and the nozzle user can retrieve the nozzle information (Fig. 5, item 104b) by accessing the server system (Fig. 1, item "DB2"), characterized in that the server system (Fig. 1, "DB5") includes: a first nozzle model number search means to extract the nozzle model number information from the data base by inputting the search criteria of a first level (Fig. 6, item 117, "model selection...part no. xx-xxxx"); a second nozzle model number search means adapted to extract

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the nozzle model number information narrowed more than the first nozzle model number information by inputting more detailed search criteria than the first level (interpreted to include Fig. 6, item 117, "fitting...xxxxxx", [235], "searches for a solenoid valve...whose sound value conductance..."); a nozzle specification search means to search the data base for the nozzle specification information by inputting the nozzle model number information (Fig. 6, "model selection"... "required airflow"); and a similar nozzle search means adapted to extract the nozzle model number information of nozzles having similar specifications (Fig. 8, item 150, similar cylinder series, ¶[141], recites "like") from the data base by inputting the reference nozzle information. (Fig. 8, item 154, see visually similar items displayed)

Regarding claim 2, Zhang teaches a nozzle information search system, wherein the first nozzle model number search means and the second nozzle model number search means include at least a means for supplying an input form to input the first-step search criteria and a means for supplying an input form to input the second-step search criteria ([213], "device selection processor 72 searches for a cylinder which satisfies the usage conditions"), each

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step being executed by changing the page, and wherein a display area is provided to display the search criteria already input on the display screen for displaying the input form and the display screen for displaying the search result. (Fig. 15, item 220, see down down data entry buttons)

Regarding claim 3, Zhang teaches a nozzle information search system, wherein the first nozzle model number search means includes a first means to supply an input form for inputting the nozzle category as a search criteria (Fig. 13, item 24, see drop down menu buttons), a second means to supply an input form for inputting the spray pattern (Fig. 6, item 114, see triangle), and a third means to supply an input form for inputting the nozzle specification. ((Fig. 6, item 116, "mounting angle")

Regarding claim 4, Zhang teaches a nozzle information search system, wherein the second nozzle model number (interpreted to include "xxxx", item 117) search means includes a fourth means to supply an input form for inputting the nozzle category (Fig. 8, item 150), a fifth means to supply an input form for inputting the inlet direction of an fluid (Fig. 6, item 116, "input valve/circuit"), a sixth means to supply an input form for

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inputting the spray pattern (§[36], "speed exhaust controller") and a seventh means to supply an input form for inputting the nozzle specification (§[213], "cylinder classification"), as search criteria. (§[213], "searches for a cylinder")

Regarding claim 8, Zhang teaches a nozzle information search system (Fig. 2, #1-2, "selection of cylinder operating system"), characterized by comprising: a means to search the data base based on the reference nozzle identification information that has been input (Fig. 5, item 104, see input form); a means to supply a display screen to display a list of reference nozzles extracted by search and select one reference nozzle from the displayed list (Fig. 6, item 117); a means to supply an input form for inputting the similar criteria of nozzles having similar specifications to the reference nozzle selected through the display screen (Fig. 8, item 154, wherein similar items appear displayed); and a means to extract a similar nozzle by searching the data base according to the similar criteria input by the input form. (§[144])

Regarding claim 9, Zhang teaches a nozzle information search system, wherein the input form is supplied in the form of table comparing the specification of the reference

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nozzle with the specification of the similar nozzles.

(Fig. 6, item 112, 2nd and 3rd columns; Fig. 6, item 117, 2nd and 3rd columns; Fig. 6, item 116, 2nd and 3rd columns)

Regarding claim 10, Zhang teaches a nozzle information search system, wherein the similar criteria include the pressure (Fig. 6, item 112, "max pressure"), flow rate (Fig. 6, item 112, "required air flow... dm3min") and spray angle characteristics (Fig. 6, item 116, "mounting angle").

Regarding claim 11, Zhang teaches a nozzle information search system, wherein in the presence of a plurality of combination data of the pressure value (Fig. 6, item 112, "max pressure") and the flow rate (Fig. 6, item 112, "required air flow... dm3min") value of the reference nozzle as a pair, one or a plurality of combinations can be designated as the similar criteria. (Fig. 6, item 112, last three lines of table)

Regarding claim 12, Zhang teaches a nozzle information search system, wherein the spray pattern (Fig. 6, item 114, see triangle) and the inlet direction of the fluid (Fig. 5, "mounting angle..deg") can be selected as search criteria. (§[213], "search for a cylinder that satisfies conditions")

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zhang et al., US Pre-Grant Pub. No. 2003/0069720 A1; Filed 3 Oct 2002; Pub. Date 10 Apr 2003, hereinafter Zhang in view of Borders et al., US Pre-Grant Pub. No. 2002/0047051 A1, Filed 3 Aug 2001, Pub. Date 25 Apr 2002, hereinafter Borders.

Regarding claim 5, Zhang teaches a nozzle information search system.

Zhang does not explicitly teach wherein the input form is so configured that a plurality of the spray patterns are displayed by illustration to permit selection of one of the spray patterns.

However, Borders teaches wherein the input form is so configured that a plurality of the spray patterns are displayed by illustration to permit selection of one of the spray patterns. (§[5], see "patterns are available based on the type of spray nozzle used")

Zhang and Borders are analogous art pertinent to the problem to be solved. A skilled artisan would have been motivated to combine Zhang and Borders because it

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provides for customer configuration of a system based on the customer's spraying needs as discussed in Borders, (Abstract).

Therefore at the time of invention, it would have been obvious to a person having ordinary skill in the art to combine Zhang and Borders because it provides for customer configuration of a system based on the customer's spraying needs as suggested in Borders, (Abstract).

Regarding claim 6, Zhang teaches a nozzle information search system.

However, Zhang does not explicitly teach wherein the input form displays by illustration a plurality of the inlet directions and a plurality of the spray patterns, so that any one of the inlet directions and the spray patterns are selectable.

Joseph teaches wherein the input form displays by illustration a plurality of the inlet directions and a plurality of the spray patterns, so that any one of the inlet directions and the spray patterns are selectable. ([78], see "spray pattern of the paint to be sprayed by selecting and fitting the appropriate pair of members 160, 161 to vary the size and/or position of the horns 173 to control the flow and/or direction of the air energy from the horns for mixing with the pain/air streams emerging

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from the nozzle 153.", Fig. 4, item 157a and Fig. 6, item 175)

See under claim 5.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Zhang et al., US Pre-Grant Pub. No. 2003/0069720 A1; Filed 3 Oct 2002; Pub. Date 10 Apr 2003, hereinafter Zhang in view of Borders et al., US Pre-Grant Pub. No. 2002/0047051 A1, Filed 3 Aug 2001, Pub. Date 25 Apr 2002, hereinafter Borders and in further view of Arenson et al., US Patent 6749134 B2, Filed 18 Jun 2001, Patent Date 15 Jun 2004, hereinafter Arenson.

Regarding claim 7, Zhang teaches a nozzle information search system.

However, Zhang and Borders do not explicitly teach wherein in the case where one of the inlet directions is selected, only the spray pattern corresponding to the selected inlet direction is displayed by illustration.

Arensen teaches wherein in the case where one of the inlet directions is selected, only the spray pattern corresponding to the selected inlet direction is displayed by illustration. (See claim 1, Fig. 3, item 30)

Zhang in view of Borders and Arensen are analogous art pertinent to the problem to be solved. A skilled artisan would have been motivated to combine Zhang in view of

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Borders and Arensen because it provides for convenient conversion of a conventional turret spray nozzle into a nozzle assembly as discussed in Arensen, Abstract.

Therefore at the time of invention, it would have been obvious to a person having ordinary skill in the art to combine Zhang in view of Borders and Ericksen because it provides for convenient conversion of a conventional turret spray nozzle into a nozzle assembly as suggested in Arensen, Abstract.

Claims 13-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zhang et al., US Pre-Grant Pub. No. 2003/0069720 A1; Filed 3 Oct 2002; Pub. Date 10 Apr 2003, hereinafter Zhang in view of Kubota et al., US Pre-Grant Pub. 20040036733 A1, Divisional of Filing of 13 Jun 2001, Filed 25 Aug 2003, Pub. Date 26 Feb 2004, hereinafter Kubota.

Regarding claim 13, Zhang teaches a nozzle information search system, characterized by comprising: a display data generating means to generate the display data for displaying the result of search by the data base search means on the computer screen of the nozzle user; (Fig. 8, items 152, 154) and wherein the display data is generated in such a manner that the unit to be displayed can be selected by the nozzle user through the search result display screen. (Fig. 14, item 214; Fig. 16, item 117)

Zhang does not explicitly teach a unit **conversion means** in which in the case where the unit of the

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characteristic value input by the nozzle user for search is different from the unit displayed in the nozzle catalog, one of the units is converted to unify the two units; wherein the data base search means is so configured that the data base is searched based on the result of conversion by the unit conversion means.

However, Kubota teaches a unit **conversion means** in which in the case where the unit of the characteristic value input by the nozzle user for search is different from the unit displayed in the nozzle catalog (interpreted to be a negative limitation), one of the units is converted to unify the two units (§[788], "Pressure (psig)..Orifice Diameter (inches)"); wherein the data base search means is so configured that the data base is searched based on the result of conversion by the unit conversion means. (§[788], see table "Flow Rate (Pounds or Gallons per Second)")

Zhang and Kubota are analogous art pertinent to the problem to be solved. A skilled artisan would have been motivated to combine Zhang and Kubota because it provides for monitoring or measurement of air pollution as performed by EPA as discussed in Kubota, ¶[308]).

Therefore at the time of invention, it would have been obvious to a person having ordinary skill in the art to combine Zhang in view of Kubota because it provides for

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monitoring or measurement of air pollution as performed by EPA as suggested in Kubota, ¶[308])..

Regarding claim 14, Zhang teaches a nozzle information search system, wherein the data base is constructed based on the unit described in the nozzle catalog. (Fig. 6, item 112 and item 116, see third column examples such as "mm/s, MPA, degC, m, kg, deg")

Regarding claim 15, Zhang teaches a nozzle information search system, wherein the display data is generated in such a manner that the units displayed by the nozzle manufactures can be collectively converted by selecting the unit to be displayed. (Fig. 6, items 112, 116, see third column units)

Regarding claim 16, Zhang teaches a nozzle information search system, wherein the display data is generated in such a manner that the unit input by the nozzle user on the nozzle search screen is visually recognizable in the unit selector for (intended use) collective unit conversion on the first search result display screen. (Fig. 11, item 140)

Regarding claim 17, Zhang teaches a nozzle information search system, wherein the nozzle information including the nozzle manufactures and the model numbers retrieved are

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displayed as a list on the search result display screen and the display data is generated in such a manner as to display the detailed information on the nozzle of the particular model number by selecting a specific one of the model numbers. (Fig. 6, item 117, see "part no." and "fitting")

Claims 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zhang et al., US Pre-Grant Pub. No. 2003/0069720 A1; Filed 3 Oct 2002; Pub. Date 10 Apr 2003, hereinafter Zhang in view of Kubota et al., US Pre-Grant Pub. 20040036733 A1, Divisional of Filing of 13 Jun 2001, Filed 25 Aug 2003, Pub. Date 26 Feb 2004, hereinafter Kubota and in further view of Hemphill, US Pre-Grant Pub. No. 2003/0102163 A1, Filed 29 Nov 2001; Pub. Date 5 Jun 2003.

Regarding claim 18, Zhang teaches a nozzle information search system, wherein the table of the pressure and flow rate can be displayed as the detailed information.

Zhang and Kubota do not explicitly teach the unit conversion can be carried out at the same time.

However, Hemphill teaches the unit conversion can be carried out at the same time. ([23], "converted to ECD units for the same time")

Zhang in view of Kubota and Hemphill are analogous art pertinent to the problem to be solved. A skilled artisan would have been motivated to combine Zhang in view of

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Kubota and Hemphill because it provides for means of converting into equivalent circulating density measurements which in turn are used in calculating sweep efficiency. as discussed in Hemphill, Abstract.

Therefore at the time of invention, it would have been obvious to a person having ordinary skill in the art to combine Zhang in view of Kubota and Hemphill because it provides for means of converting into equivalent circulating density measurements which in turn are used in calculating sweep efficiency. as suggested in Hemphill, Abstract.

Claims 19-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zhang et al., US Pre-Grant Pub. No. 2003/0069720 A1; Filed 3 Oct 2002; Pub. Date 10 Apr 2003, hereinafter Zhang in view of Chris, "SF-40030: Optimizing spray nozzle performance in metal pretreatment applications", 11 Oct 2000, Spraying Systems Co.

Regarding claim 19, Zhang teaches a nozzle catalog data base used for the nozzle information search system. (Fig. 5) the fact that the spray angle is provisional (interpreted to be optional) can be displayed on the search result display screen. (See Fig. 5, "setting angle 90 deg")

Zhang does not explicitly teach herein the pressure, flow rate and the spray angle described in the catalog are handled as a combination unit and this combination unit is registered with corresponding nozzle model number

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information; wherein in the absence of the description of the spray angle corresponding to the combination of pressure and flow rate in the catalog, the appropriate one of the spray angles described in the catalog which corresponds to the pressure is registered as a provisional spray angle (interpreted as met by any spray computation that is performed prior to performing the operation in the real world); wherein the provisional spray angle is registered together with the identification data indicating the fact that the spray angle is provisional; and wherein in the case where the nozzle model number information is retrieved based on the pressure, flow rate and spray angle. (provisional is interpreted as a negative limitation of not being put into force)

Chris teaches wherein the pressure, flow rate and the spray angle described in the catalog are handled as a combination unit and this combination unit is registered with corresponding nozzle model number information (P. 4, Col. 1, Lines 1, 8 "No. 46500A ProMax Clip Eyelet nozzle combines... 10 degree offset"); wherein in the absence of the description of the spray angle corresponding to the combination of pressure and flow rate in the catalog (P. 4, Col. 2, Lines 10-13, " .19 to 2.9 gpm at 40 psi"), the

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appropriate one of the spray angles described in the catalog which corresponds to the pressure is registered as a provisional spray angle (P. 4, Col. 2, Lines 13, 18, "wide angle models...WhirlJet tips are available with standard angles"); wherein the provisional spray angle is registered together with the identification data indicating the fact that the spray angle is provisional (P. 4, Col. 2, paragraph 2, "eight different spray angles", wherein provisional is interpreted to be a conditional or negative limitation); and wherein in the case where the nozzle model number information is retrieved based on the pressure, flow rate and spray angle, (P. 4, Col. 2, paragraph 2, "40 psi (4.6 to 32.0 l/min at 4 bar" with standard angle).

Zhang and Chris are analogous art pertinent to the problem to be solved. A skilled artisan would have been motivated to combine Zhang and Chris because it provides for "a complete line of spray nozzles designed to provide precise performance and innovative solutions in every type of metal pretreatment application—whether it's cleaning, conversion coating, rinsing, blow-off, or wetting" as discussed in Chris, P. 2, Col. 2, paragraph [3]).

Therefore at the time of invention, it would have been obvious to a person having ordinary skill in the art to combine Zhang and Chris because it provides for "a complete line of spray nozzles designed to provide precise performance and innovative solutions in

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every type of metal pretreatment application—whether it's cleaning, conversion coating, rinsing, blow-off, or wetting" as suggested in Chris, P. 2, Col. 2, paragraph [3]).

Regarding claim 20, Zhang teaches a nozzle catalog data base. ((Fig. 3, "DB2", and Fig. 6, item 117)

Zhang does not explicitly teach, wherein in the absence of description of the spray angle corresponding to the combination of a first pressure and flow rate in the catalog but the spray angle corresponding to a different combination, the spray angle corresponding to a second pressure nearest to the first pressure is registered as a provisional spray angle.

However, Chris teaches a nozzle catalog data base, wherein in the absence of description of the spray angle corresponding to the combination of a first pressure and flow rate in the catalog but the spray angle corresponding to a different combination, the spray angle corresponding to a second pressure nearest to the first pressure is registered as a provisional spray angle. (P. 4, Col. 2, paragraph [2], "40 psi" corresponds to "wide angle models" and "40 psi" corresponds to "standard angle models")

Regarding claim 21, Zhang teaches a nozzle catalog data base, wherein in the presence of description of only one spray angle, the particular spray angle is registered

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as a provisional spray angle. (Fig. 5, " setting angle 90 deg")

Regarding claim 22, Zhang teaches a nozzle catalog data base.

Zhang does not explicitly teach, wherein in the presence of description of the spray distance and the spray width in the catalog, the spray distance and the spray width converted into a spray angle is registered as a provisional spray angle together with the second identification data.

However, Chris teaches wherein in the presence of description of the spray distance and the spray width in the catalog, the spray distance and the spray width converted into a spray angle is registered as a provisional spray angle together with the second identification data. (P. 5, Col. 1, paragraph [1], " 1 inch, 1-1/4 inch, 1-½ inch, or 2 inch pipe", Col. 2, paragraph [2], "spray angles from 15 degrees to 80 degrees")

See under claim 19.

A primary motivation for the reference combination is that additional descriptive attributes inform the buyer so that the buyer can make a more informed decision regarding a purchase.

Claims 23-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zhang et al., US Pre-Grant Pub. No. 2003/0069720 A1; Filed 3 Oct 2002; Pub. Date 10 Apr 2003, hereinafter Zhang in view of Chris, "SF-40030: Optimizing spray nozzle performance in metal pretreatment applications", 11 Oct 2000, Spraying Systems Co. and in further view of Toyomura et al., US Pre-Grant Pub. No. 2002/0116575, Filed 7 Nov 2001; Pub. Date 22 Aug 2002, hereinafter Toyomura.

Regarding claim 23, Zhang nozzle information search system.

Zhang does not explicitly teach a wherein the server system includes: a page supply means to supply the search result page for displaying the nozzle information and the thumbnail image of the catalog of the particular nozzle as a result of the search by the data base search means;

Chris teaches a wherein the server system includes: a page supply means to supply the search result page for displaying the nozzle information and the thumbnail image of the catalog of the particular nozzle as a result of the search by the data base search means; (P. 5 Col. 2, upper right figure)

Zhang and Chris do not teach an electronic mail starting means arranged on the search result page; the server system further including a page attaching means to

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attach the search result page to the electronic mail on the electronic mail generating screen arranged in the search result page; wherein the page attaching means executes the process in such a manner as to attach the nozzle information and the thumbnail image while at the same time deleting the predetermined text information not required to be transmitted and the predetermined image information other than the thumbnail image from the page.

Zhang and Chris are analogous art pertinent to the problem to be solved. A skilled artisan would have been motivated to combine Zhang and Chris because it provides for “a complete line of spray nozzles designed to provide precise performance and innovative solutions in every type of metal pretreatment application—whether it’s cleaning, conversion coating, rinsing, blow-off, or wetting” as discussed in Chris, P. 2, Col. 2, paragraph [3]).

Therefore at the time of invention, it would have been obvious to a person having ordinary skill in the art to combine Zhang and Chris because it provides for “a complete line of spray nozzles designed to provide precise performance and innovative solutions in every type of metal pretreatment application—whether it’s cleaning, conversion coating, rinsing, blow-off, or wetting” as suggested in Chris, P. 2, Col. 2, paragraph [3]).

Zhang and Chris do not teach an electronic mail starting means arranged on the search result page; the server system further including a page attaching means to attach the search result page to the electronic mail on the

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electronic mail generating screen arranged in the search result page; wherein the page attaching means executes the process in such a manner as to attach the nozzle information and the thumbnail image while at the same time deleting the predetermined text information not required to be transmitted and the predetermined image information other than the thumbnail image from the page.

Toyomura teaches an electronic mail starting means arranged on the search result page; the server system further including a page attaching means to attach the search result page to the electronic mail on the electronic mail generating screen arranged in the search result page ([277], Fig. 12, items 134a-b); wherein the page attaching means executes the process in such a manner as to attach the nozzle information (Fig. 11, step 3000) and the thumbnail image ([59], "compressed thumbnail image") while at the same time deleting the predetermined text information not required to be transmitted and the predetermined image information other than the thumbnail image from the page. ([301])

Zhang in view of Chris and Toyomura are analogous art pertinent to the problem to be solved. A skilled artisan would have been motivated to combine Zhang and Chris

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because it provides easy to use memory media which a user can manage a plurality of different types of files stored as discussed in Toyomura, paragraph [21].

Therefore at the time of invention, it would have been obvious to a person having ordinary skill in the art to combine Zhang and Chris because it provides easy to use memory media which a user can manage a plurality of different types of files stored as suggested in Toyomura, paragraph [21].

Regarding claim 24, Zhang does not explicitly teach a nozzle information search system, wherein the attached information is the HTML file and the image file of the thumbnail image.

However, Toyomura teaches a nozzle information search system, wherein the attached information is the HTML file and the image file of the thumbnail image. ([219], "abc.bmp" is an example thumbnail and [220], "HTML" is attached)

See under claim 23.

Another motivation to combine is so that users can send multi part or mixed emails as discussed in paragraph [218].

Claims 25-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zhang et al., US Pre-Grant Pub. No. 2003/0069720 A1; Filed 3 Oct 2002; Pub. Date 10 Apr 2003, hereinafter Zhang in view of Pan et al., US Patent 7058626 B1; Filed 28 Jul 2000; Patent Date 6 Jun 2006, hereinafter Pan.

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Regarding claim 25, Zhang teaches a nozzle information search system, wherein the server system includes: a means to supply a first page group generated based on a first language to supply the user with a nozzle search service (Fig. 6, English); a means to supply a specified page constituting a part included in the page group for explaining at least the summary of the search system ((Fig. 7, items 142, 148); and a guide means to guide the user to the specified page; (Fig. 8, item 154)

However, Pan teaches a means to supply a second page group with the same contents as the first page group generated based on the second language; and wherein the specified page is generated based on at least one third language in addition to the first and second languages. (Fig. 5, items 505, 506)

Zhang and Pan are analogous art pertinent to the problem to be solved. A skilled artisan would have been motivated to combine Zhang and Pan because it provides for “site-specific query translation and discriminate multiple meanings of a synonym and multiple translations of a meaning...this invention is easy to implement and promote” as discussed in Pan, Col. 6, Lines 15-25.

Therefore at the time of invention, it would have been obvious to a person having ordinary skill in the art to combine Zhang and Pan because it provides for “site-specific query translation and discriminate multiple meanings of a synonym and multiple

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translations of a meaning...this invention is easy to implement and promote” as suggested in Pan, Col. 6, Lines 15-25..

Regarding claim 26, Zhang teaches a nozzle information search system, wherein the server system. (Title, Fig. 2)

Zhang does not explicitly teach includes: a second means to supply a page at the top of the search system or a page linked to the top page, at least one of the pages functioning as a language select page adapted to select one of the first, second and third languages, the system further including: a third means to supply a first content page prepared based on the first language, arranged for explaining the table of contents of the search system and linked to the specified page prepared based on the language selected by selecting the language type; a fourth means to supply a second content page having the same content as the first content page and prepared based on the second language; and a fifth means to supply a second specified page prepared based on the third language for explaining the presence of the specified page; wherein the guide means is so configured that the first content page is linked in the case where the first language is selected, the second content page is linked in the case where the second language is selected and the second specified page is

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linked in the case where the third language is selected in the language select page.

However, Pan teaches a nozzle information search system, wherein the server system includes: a second means to supply a page at the top of the search system or a page linked to the top page, at least one of the pages functioning as a language select page adapted to select one of the first, second (Fig. 8, English and Chinese) and third languages (Fig. 7, "HTML"), the system further including: a third means to supply a first content page prepared based on the first language (Col. 2, Lines 10-20, "HTTP"), arranged for explaining the table of contents of the search system and linked to the specified page prepared based on the language selected by selecting the language type (Col. 9, Lines 63-Col. 10, Line 8); a fourth means to supply a second content page having the same content as the first content page and prepared based on the second language; and a fifth means to supply a second specified page prepared based on the third language for explaining the presence of the specified page (Col. 10, Lines 30-39); wherein the guide means is so configured that the first content page is linked in the case where the first language is selected, the second content page is linked in the case

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where the second language is selected and the second specified page is linked in the case where the third language is selected in the language select page. (Fig. 5, items 505, 506, 510)

See under claim 25.

A primary motivation to provide localized support in an online store for additional languages appears same as increasing the number and diversity of the customer base.

Regarding claim 27, Zhang teaches a nozzle information search system, wherein the guide means is so configured that the second specified page is linked to one of the first content page and the second content page. (Fig.8, items 158, 160 appear commonly linked via "XXXXXXX")

Regarding claim 28, Zhang teaches a nozzle information search system. (Title)

Zhang does not explicitly teach wherein the guide means is so configured that the first content page and the second content page are linked to the specified page and have the function to select the first, second and third languages, and wherein by selecting one of these languages, the specified page prepared based on the selected language is linked.

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However, Pan teaches a nozzle information search system, wherein the guide means is so configured that the first content page and the second content page are linked to the specified page and have the function to select the first, second and third languages, and wherein by selecting one of these languages, the specified page prepared based on the selected language is linked. (Col. 10, Lines 50-53; Fig. 9, left most panel)

See under claim 25.

Regarding claim 29, Zhang teaches a nozzle information search system. (Title)

However, Zhang does not explicitly teach wherein at least a part of pages included in the first page group and the second page group is linked to a translation site for translating the first or second language to the third language.

Pan teaches wherein at least a part of pages included in the first page group and the second page group is linked to a translation site for translating the first or second language to the third language. (Fig. 9, left most panel)

See under claim 25.

Conclusion

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph D. Wong whose telephone number is 571-270-1015. The examiner can normally be reached on Mon.-Thur. 8:30AM - 6:00PM and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tim T. Vo can be reached on (571) 272-3642. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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